SIEMENS

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Gigaset USB Adapter 11

wireless LAN

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Safety precautions

- Protect the device from damp.
- The Gigaset USB Adapter 11 may affect the operation of medical equipment. Take account of the technical conditions in the relevant environment.
- Be sure to include the operating instructions if you pass your Gigaset USB Adapter 11 on to someone else.
- Dispose of the Gigaset USB Adapter 11 in an environmentally safe manner.

The Gigaset USB Adapter 11

Gigaset USB Adapter 11 is an IEEE 802.11b wireless LAN USB adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without being restricted to the network wires. Operating in 2.4GHz Direct Sequence Spread Spectrum (DSSS) radio transmission, the Gigaset USB Adapter 11 transfers data at speeds up to 11Mbps. Both ad hoc and infrastructure mode are supported. For network security reasons, 64/128-bit Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b networks.

This User's Manual contains information on how to install and configure your Gigaset USB Adapter 11. Your Gigaset USB Adapter 11 will allow you to connect your computer to other wireless network adapter equipped computers.

Wireless LAN Basics

This section contains some wireless LAN basics to help you better understand how the Gigaset USB Adapter 11 works to create a wireless network.

Local Area Network (LAN)

Simply put, a LAN is a network that exists in a relatively limited area. A network is two or more computers connected together, sharing files and peripheral devices such as printers.

The Gigaset USB Adapter 11 allows you to interact with other computers without having to run cables normally associated with networks. This lets you move your computer around while staying connected to your network.

There are two ways to use the Gigaset USB Adapter 11. One way is to connect directly to one or more wireless network adapter equipped computers, forming an ad hoc wireless network. The second way is to connect to an Access Point that gives you access to an existing wired LAN, forming an infrastructure wireless network.

Ad Hoc Network

The ad hoc network offers peer-to-peer connections between workstations, allowing communication between computers within range that have an IEEE 802.11b DSSS compatible PC card installed. A wireless ad hoc network can also access a wired LAN's TCP/IP service (such as e-mail and the Internet) by using a TCP/IP software router on an Ethernet equipped PC.

Infrastructure Network

The infrastructure network uses an access point (or several access points) as a gateway, linking the wireless network to a wired LAN. As a result, portable workstations or desktops on your wireless network have access to all of the features of your wired LAN including e-mail, Internet access, network printers and file servers.

Roaming

Multiple Access Points can be installed to extend the wireless service coverage area for seamless wireless access. Within an extended service area, all Access Points and wireless network adapters must have the same Service Set Identity (SSID). Roaming between different Access Points is controlled automatically to maintain the wireless connectivity at all times.

Installing the Gigaset USB Adapter 11

This chapter describes the system requirements and Gigaset USB Adapter 11 status LEDs. In addition, we will guide you through the Gigaset USB Adapter 11 installation as outlined below:

1. Installing the software utility using the Software Utility CD provided.
2. The hardware and then driver installation will be auto-processed.
3. If you need to set up the TCP/IP protocol to communicate with your network, refer to "Setting up TCP/IP" on page 39 for details.

i	Please note that you may need administration rights for the installation.

System Requirements

To use the Gigaset USB Adapter 11, your computer must meet the following minimum requirements:

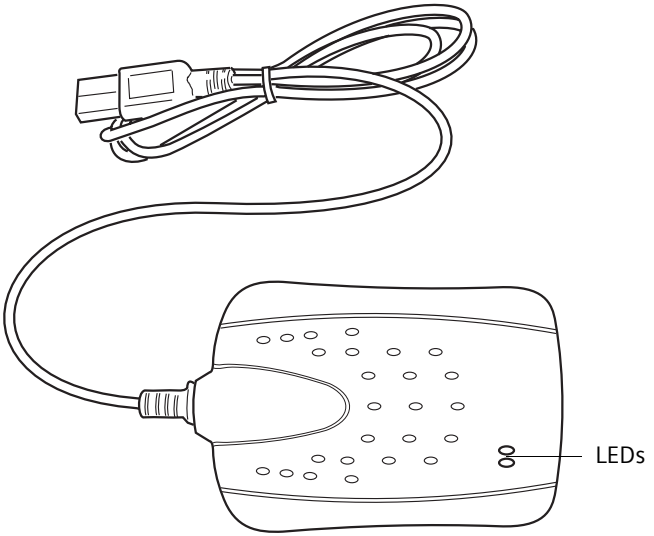
- Windows 98, Windows 98 SE, Windows ME, Windows 2000 or Windows XP
- 32 MB of RAM, additional memory recommended
- Standard USB port

Package Content

- Gigaset USB Adapter 11
- Installation CD including the user guide
- Quick Installation Guide

Gigaset USB Adapter 11 Status LEDs

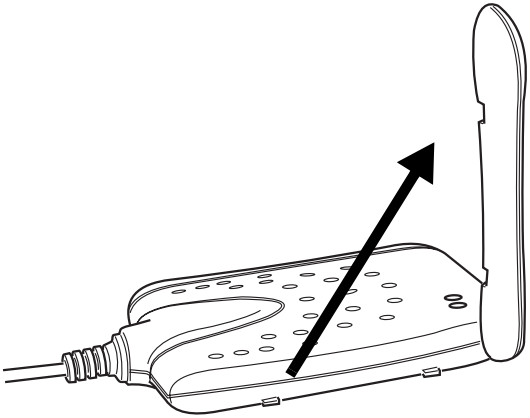
The two LEDs on the Gigaset USB Adapter 11 indicate connection status and data transfer operation status, as described below:



LED	Color	State	Description
Power	Red	On	The adapter is plugged into the USB port of your computer.
Activity	Green	Blinking	Transmission mode. The faster the LED blinks, the higher the data exchange rate.

The Antenna on the Gigaset USB Adapter 11

The USB adapter comes with a powerful antenna. You can rotate the antenna from 0 to 180 degrees to adjust its range and the connection quality.



i	Do not rotate the antenna more than 180 degrees, otherwise permanent damage may be caused.

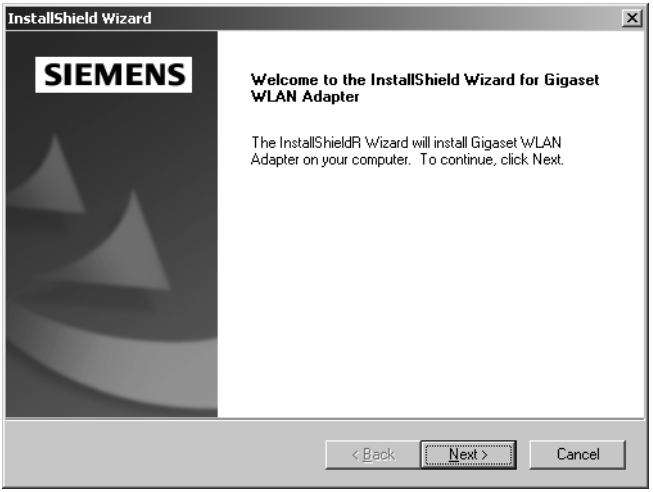
Installation for Windows 98, 98 SE, ME, 2000

!	Do not connect the Gigaset USB Adapter 11 to your computer before installing its software. If this happens, Windows will automatically detect the USB device and issue a dialog box requesting its driver. Click ***Cancel*** to quit the wizard.

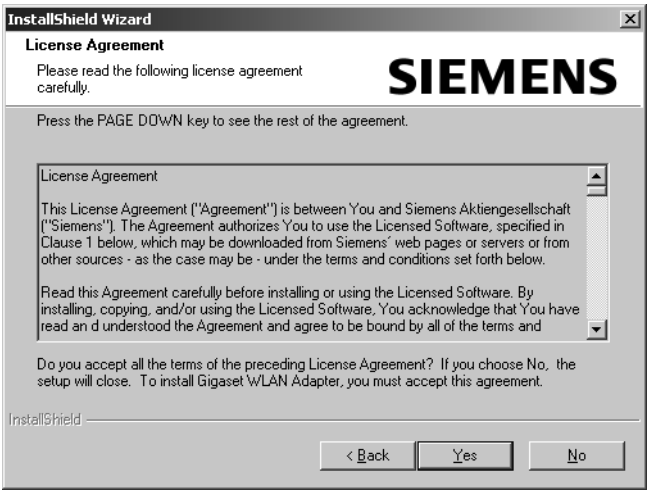
Follow these steps to install the Gigaset USB Adapter 11 software:

1. Close all Windows programs that are running.
2. Insert the Software Utility CD provided into your CD-ROM drive and select ***Utility&Driver***. Or, run Setup.exe from the D:\Utility&Driver folder of the Software Utility CD where D is the drive letter.

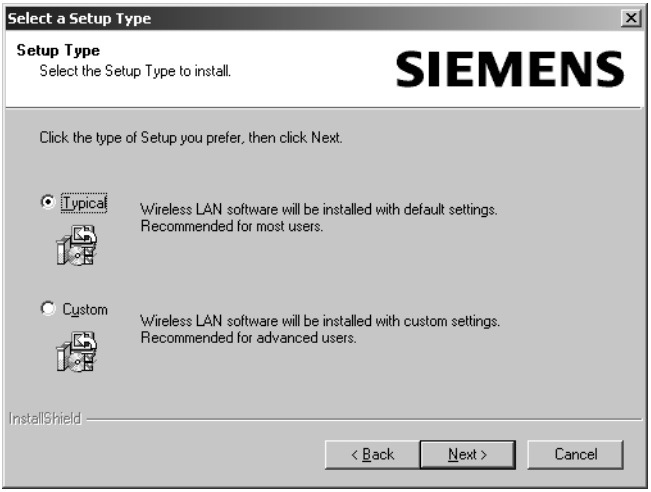
3. When the welcome screen pops up, select the language and click ***Next***.


InstallShield Wizard
SIEMENS
Welcome to the InstallShield Wizard for Gigaset WLAN Adapter
The InstallShieldR Wizard will install Gigaset WLAN Adapter on your computer. To continue, click Next.
< Back
Next >
Cancel

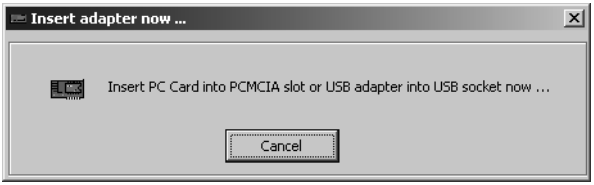
4. Read the license agreement and accept.


InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
SIEMENS
Press the PAGE DOWN key to see the rest of the agreement.
License Agreement
This License Agreement ("Agreement") is between You and Siemens Aktiengesellschaft ("Siemens"). The Agreement authorizes You to use the Licensed Software, specified in Clause 1 below, which may be downloaded from Siemens' web pages or servers or from other sources - as the case may be - under the terms and conditions set forth below.
Read this Agreement carefully before installing or using the Licensed Software. By installing, copying, and/or using the Licensed Software, You acknowledge that You have read an d understood the Agreement and agree to be bound by all of the terms and
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install Gigaset WLAN Adapter, you must accept this agreement.
InstallShield
< Back
Yes
No

5. For quick installation, select ***Typical***. For custom installation (to select the parameters that you would like to use), select ***Custom*** and click ***OK*** to go to next step.

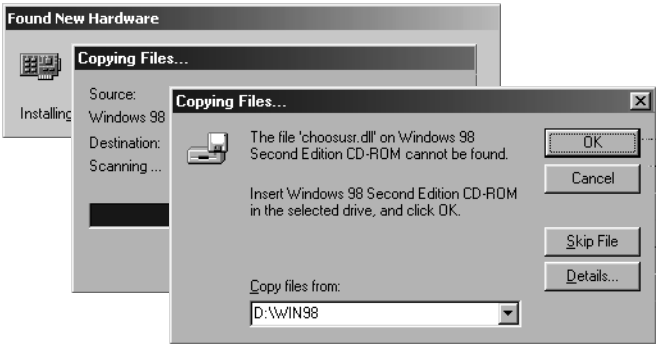

Select a Setup Type
Setup Type
Select the Setup Type to install.
SIEMENS
Click the type of Setup you prefer, then click Next.
Typical
Wireless LAN software will be installed with default settings.
Recommended for most users.
Custom
Wireless LAN software will be installed with custom settings.
Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

6. After the software installation is finished, plug the Gigaset USB Adapter 11 into the USB port of your computer.



i	The red LED on the Gigaset USB Adapter 11 will light when the Gigaset USB Adapter 11 is connected to your computer.

7. Upon hardware detection, Windows OS will install the driver for the card automatically.



Note:

- If you are prompted with the "INF not found" alarm, please click the ***Browse*** button to locate the .inf file. Usually it is located on C:\Windows\inf or C:\Winnt\inf.
- For Windows 2000: If you are prompted with the Digital Signature not Found alarm message, just click ***Yes*** to ignore it and continue with the auto-installation.
- For Windows 98 SE: If prompted, you need to insert your Windows 98 SE installation CD to complete the driver installation.

i	If you need to set up the TCP/IP address or the subnet mask, refer to "Setting up TCP/IP" on page 39 for details.

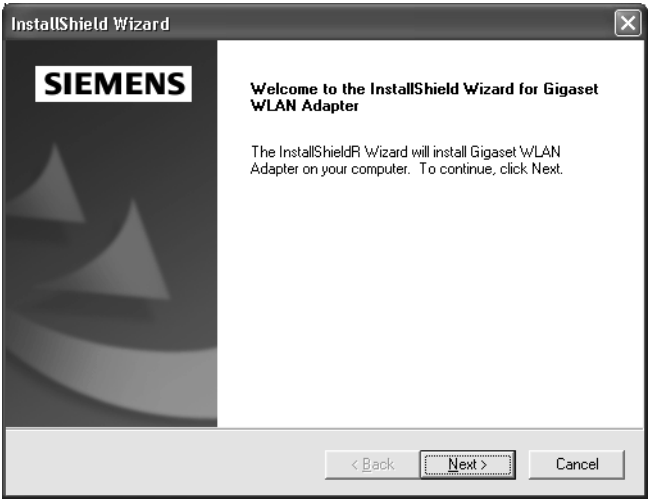
Now you are done with the installation procedure. If the Wireless LAN Monitor Utility does not start automatically, select ***Start*** - ***Programs*** - ***Wireless LAN Client Utility*** - ***Wireless LAN Monitor Utility***. You should be able to see the ***Wireless LAN Monitor*** icon appearing on the right side of the taskbar. Proceed to following chapter to configure or fine-tune your Gigaset USB Adapter 11 settings.

Installation for Windows XP

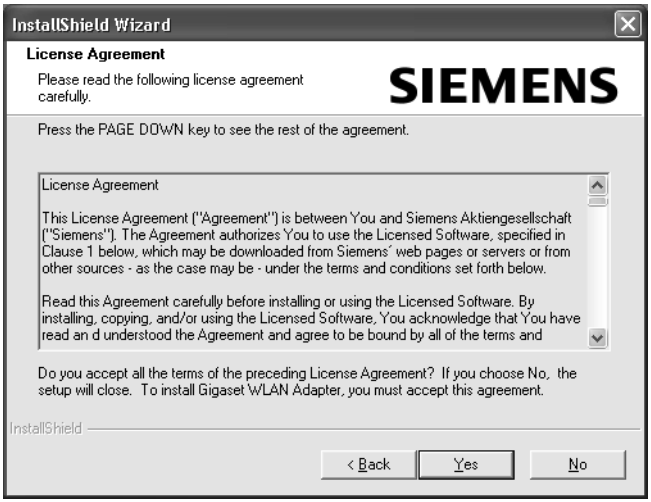
!	Do not connect the Gigaset USB Adapter 11 to your computer before installing its software. If this happens, Windows automatically will detect the USB device and issue a dialog box requesting its driver. Click ***Cancel*** to quit the wizard.

Follow these steps to install the Gigaset USB Adapter 11 software:

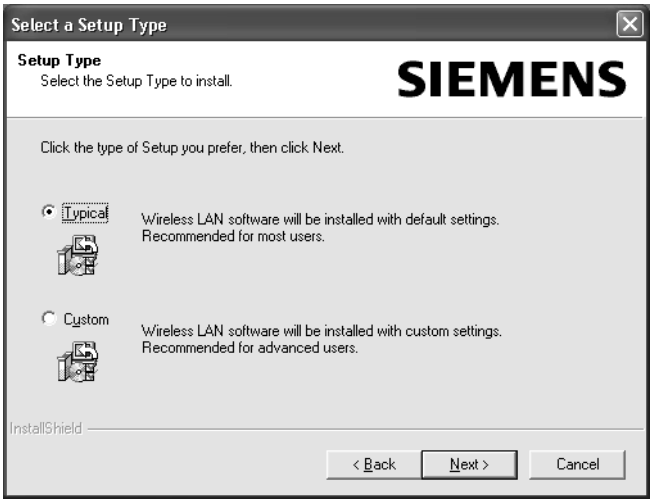
1. Close all Windows programs that are running.
2. Insert the provided Software Utility CD into your CD-ROM drive and select Utility&Driver. For example, run Setup.exe from the D:\Utility&Driver folder of the Software Utility CD where D is the drive letter.
3. When the welcome screen pops up, select the language and click ***Next***.


InstallShield Wizard
SIEMENS
Welcome to the InstallShield Wizard for Gigaset WLAN Adapter
The InstallShield® Wizard will install Gigaset WLAN Adapter on your computer. To continue, click Next.
< Back
Next >
Cancel

4. License Agreement screen appears. Click ***Yes***.


InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
SIEMENS
Press the PAGE DOWN key to see the rest of the agreement.
License Agreement
This License Agreement ("Agreement") is between You and Siemens Aktiengesellschaft ("Siemens"). The Agreement authorizes You to use the Licensed Software, specified in Clause 1 below, which may be downloaded from Siemens' web pages or servers or from other sources - as the case may be - under the terms and conditions set forth below.
Read this Agreement carefully before installing or using the Licensed Software. By installing, copying, and/or using the Licensed Software, You acknowledge that You have read an d understood the Agreement and agree to be bound by all of the terms and
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install Gigaset WLAN Adapter, you must accept this agreement.
InstallShield
< Back
Yes
No

5. For quick installation, select ***Typical***. For custom installation (to select the parameters that you would like to use), select ***Custom*** and click ***OK*** to go to next step.

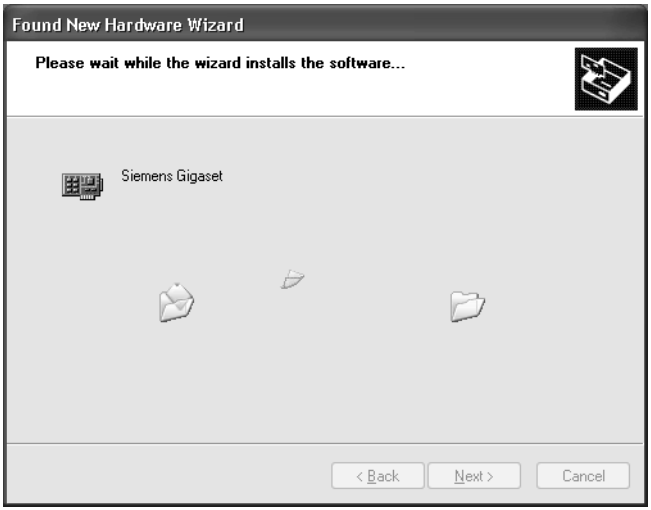

Select a Setup Type
Setup Type
Select the Setup Type to install.
SIEMENS
Click the type of Setup you prefer, then click Next.
Typical
Wireless LAN software will be installed with default settings. Recommended for most users.
Custom
Wireless LAN software will be installed with custom settings. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

6. After the software installation is finished, plug the Gigaset USB Adapter 11 onto the USB port of your computer.

7. Upon hardware detection, Windows OS will pop up a dialog as below. Please choose the ***Install the software automatically*** radio button and click ***Next***.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Siemens Gigaset
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

8. Windows will copy the drivers from the Software Utility CD.



9. After Windows XP has copied the drivers from the Software Utility CD, click ***Finish***.

Note:
If you are prompted with the "INF not found" alarm, please click the ***Browse*** button to locate the .inf file. Usually it is located on C:\Windows\inf.

Wireless LAN Monitor Utility

Wireless LAN Monitor Utility for Windows 98, 98 SE, ME, 2000, XP

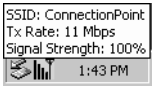
Wireless LAN Monitor Icon

The Gigaset USB Adapter 11 uses the ***Wireless LAN Monitor Utility*** for both configuration and monitoring. The utility is launched automatically with its icon located on the system tray. Right-clicking the icon displays the context menu.

i	If the utility is not launched, manually start the monitor by selecting ***Start*** - ***Programs*** - ***Wireless LAN Client Utility*** - ***Wireless LAN Monitor Utility***.

The ***Wireless LAN Monitor*** icon color is green or yellow to indicate your Gigaset USB Adapter 11 is in infrastructure or ad hoc mode respectively.

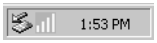
In **infrastructure** mode, if the icon is marked with a red "X", it means that the Gigaset USB Adapter 11 is not connected to an Access Point. The following graphics show examples of established and failed wireless connection in infrastructure mode:



Wireless connection is established.

Disconnected wireless connection.

In **ad hoc** mode, the icon is always like the following graphic, except when the card is resetting and initializing, when it is marked with a red "X".



Wireless LAN Monitor Utility

To start the utility program, double-click the icon or select ***About...*** from its context menu. The ***Wireless LAN Monitor Utility*** screen pops up with six tabs: ***Monitor***, ***Statistics***, ***Site Survey***, ***Encryption***, ***Advanced*** and ***Version***. Please see the appropriate section which describes each tab item.

Monitor

The monitor function allows you to re-configure the Gigaset USB Adapter 11 setting. Even though you have configured the settings during driver and utility installation, you may want to change your operating mode between infrastructure or ad hoc mode and fine-tune other settings.

You can connect your computer to a network in one of the following two ways. Refer to the subsequent sections for configuration:

Ad Hoc Connecting to other wireless network adapter equipped computers, forming a wireless network.

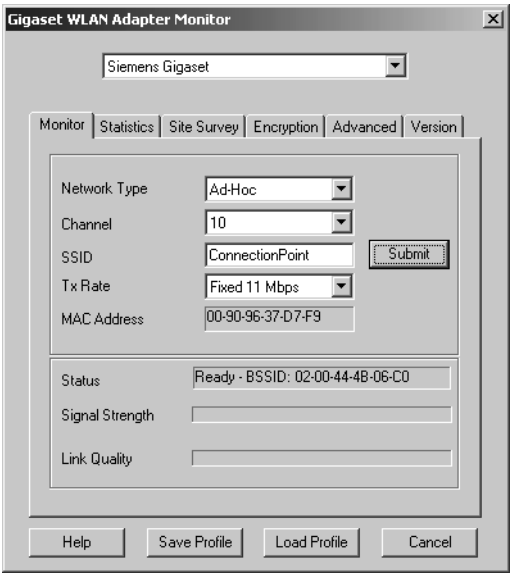
Infrastructure Connecting to a wired/wireless network through an Access Point, i. e. Gigaset E105 dsl/cable.

Connecting to Other Wireless Network Adapters (Ad Hoc Mode)

1. In the taskbar, double-click the ***Wireless LAN Monitor*** icon to display the Wireless LAN Monitor Utility dialog box.
2. Click the ***Monitor*** tab.
3. In the ***Network Type*** list, select ***Ad-Hoc***.
4. In the ***Channel*** list, select the Channel number of the wireless LAN group.
5. In the ***SSID*** list, type the Service Set ID (SSID) of the wireless LAN group.
6. In the ***Tx Rate*** list, select the transmission rate of the wireless LAN group.

i	All wireless network adapters **must** use the same ***Network Type***, ***Channel***, ***SSID*** and ***Tx Rate***, in order to communicate with each other.

7. Click ***Submit***.

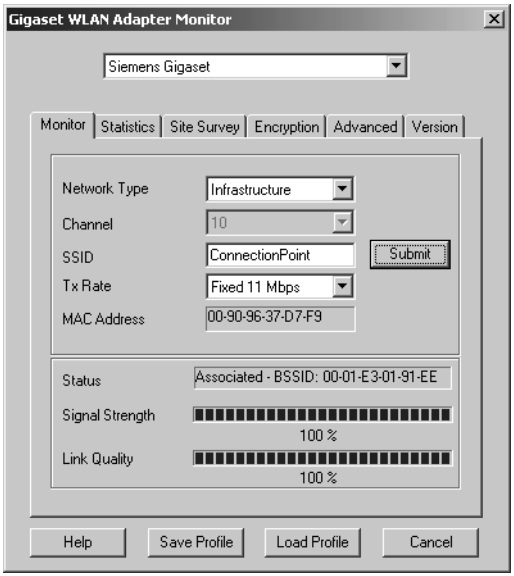


8. Click ***Hide*** if you wish to exit the utility.

i	The ***MAC Address*** field indicates the MAC address of your wireless network adapter.

Connecting to Access Points (Infrastructure Mode)

1. In the taskbar, double-click the ***Wireless LAN Monitor*** icon to display the ***Wireless LAN Monitor Utility*** dialog box.
2. Click the ***Monitor*** tab.
3. In the ***Network Type*** list, select ***Infrastructure***.
4. In the ***SSID*** list, enter the Service Set ID (SSID) of the Access Point. The wireless network adapter must use the same SSID as the Access Point in order to communicate with other computers via the Access Point.
5. Click ***Submit***. If the connection is successful, you should be able to find your computer on the Network Neighborhood in Windows Explorer.



6. Click ***Hide*** if you wish to exit the utility.

Checking Link Quality (Infrastructure Mode Only)

To check the link quality of the connection when in infrastructure mode, double-click the ***Wireless LAN Monitor*** icon on the taskbar to display the ***Wireless LAN Monitor Utility*** dialog box. Then click the ***Monitor*** tab. The connection status is shown at the bottom of the dialog box.

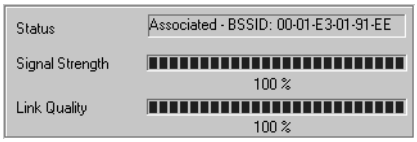
i	If you are in ad hoc mode, the ***Signal Strength*** and ***Link Quality*** fields are inactive.

Status Indicates the Access Point your Gigaset USB Adapter 11 is associated with. If no Access Point is connected, current status, such as scanning, authenticating, is displayed.

Signal Strength Displayed as a percentage using active progress indicators that change as the network radio signal fluctuates.

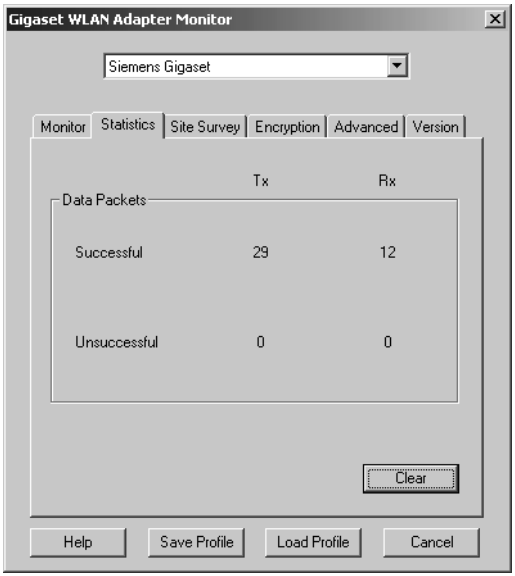
Link Quality Link Quality categories are defined as follows:

Link Quality	**Range (%)**
Poor	0-29
Fair	30-59
Good	60-89
Excellent	90-100



Statistics

The statistics feature allows you to view the available statistics information (***Data Packets***). Tx indicates data is being transmitted, whereas Rx indicates data is being received. To renew the statistics, click the ***Clear*** button.



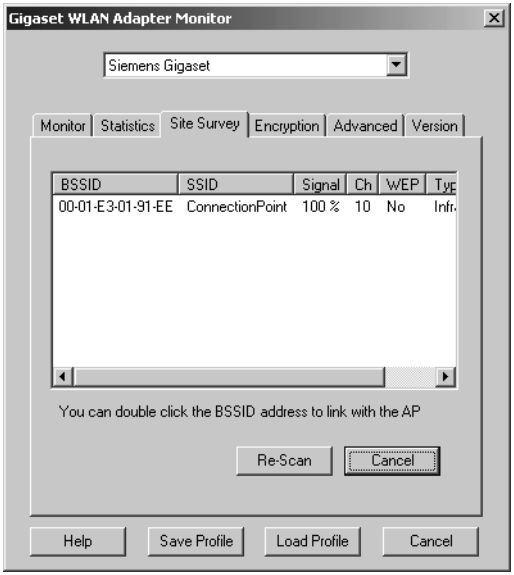
Site Survey

The site Survey function scans the wireless network searching for available Access Points and wireless stations (ad hoc mode) within the range of the card. Available stations are listed with the following information:

BSSID	Basic Service Set ID. It is actually the MAC address of the Access Point/ wireless station (ad hoc mode). It can be used to identify the stations when they have the same SSID.
SSID	Service Set ID. Displays the current SSID of the Access Point/wireless station (ad hoc mode).
Signal	Shows the signal strength ratio. The higher the ratio, the more powerful the signal received by your Gigaset USB Adapter 11. It helps you identify the quality network operation.
Ch (Channel)	The operating radio channel number.
WEP	Indicates whether encryption is enabled or disabled on the Access Point/ wireless station (ad hoc mode).
Type	Indicates whether the operating mode is infrastructure (Access Point) or ad hoc (wireless station).
Re-Scan	This button allows you to update the list.

Connecting to Desired Site by Site Survey Utility

If you want to connect to any of the Access Point(s) and ad hoc Station(s) listed, double-click on your choice (on the ***BSSID*** field). The utility will take you back to the ***Monitor*** screen showing the parameters of the connection newly established.



Encryption

Encryption technology is used to enhance wireless media security. Your encryption settings must match those used by the Access Points or wireless stations (ad hoc mode) in your network, or your computer will be unable to communicate with others through the network.

i	If you want to use encryption in infrastructure mode, please proceed as follows: ◆ Ensure that encryption is activated on the Access Point. ◆ Convert your passphrase for the Access Point to HEX format and type the key values into the appropriate fields ***Key #1***- ***Key #4***. Using the HEX format makes sure that the keys are the same, even if wireless devices use different procedures to convert passphrases.

If you are not going to use encryption, go to the ***Encryption*** tab and select ***Disabled*** from the ***Encryption*** drop-down menu. However, if you want to enable encryption, please do the following:

1. Select the ***Encryption*** tab from the ***Wireless LAN Monitor Utility***.
2. Select ***64 Bit*** or ***128 Bit*** as your encryption type.
   For flexibility, you can enter the WEP keys in either HEX or ASCII format. Enable the preferred format and then enter the key values in the ***Key #1***- ***Key #4*** fields.
   If using HEX format, the utility converts two entered characters into their corresponding ASCII code and vice versa. Note that when using HEX format, only digits 0-9 and letters A-F are allowed. The valid key length for each encryption type is as below:

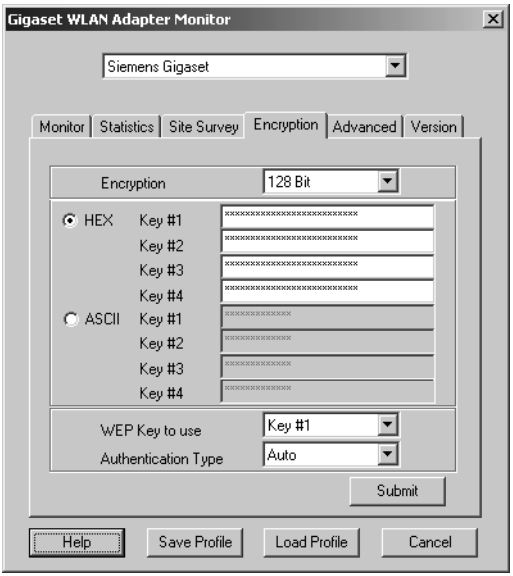
	HEX Format	ASCII Format
64 Bit	10 hexadecimal digits	5 ASCII characters
128 Bit	26 hexadecimal digits	13 ASCII characters

   Note that the four keys, including the one selected as ***WEP Key to use***, are used to decrypt the data you receive.
3. In the ***WEP Key to use*** box, select one of the four keys to encrypt the data you are going to transmit.
4. Select the ***Authentication Type***.

Open System	The Access Point does not do the authentication.
Shared Key	The Access Point uses the WEP key for the Gigaset USB Adapter 11's authentication.
Auto	Gigaset USB Adapter 11 detects automatically the Access Point's authentication type setting and chooses the right type accordingly.

Your authentication type must be the same as those on the Access Point/wireless network adapter (ad hoc mode) with which you want to associate.

5. To have the new settings take effect, click the ***Submit*** button.



6. Click ***Hide*** to exit the utility.

Advanced

The advanced feature allows you to change advanced configuration settings: ***Fragmentation Threshold, RTS Threshold*** and ***802.11 Power Save***.

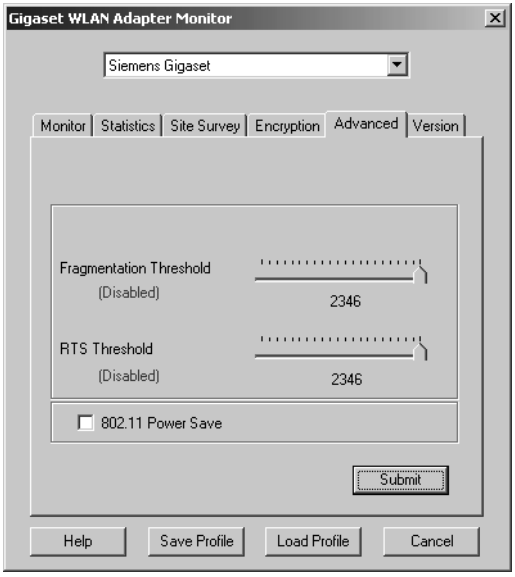
Fragmentation Threshold The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented and at what size. On an IEEE 802.11 wireless LAN, packets exceeding the fragmentation threshold are fragmented, i.e. split into, smaller units suitable for the circuit size. Packets smaller than the specified fragmentation threshold value are not fragmented.

RTS Threshold When set (in bytes), it specifies the packet size beyond which the Gigaset USB Adapter 11 invokes its RTS/CTS mechanism. Packets that exceed the specified RTS threshold trigger the RTS/CTS mechanism. The NIC transmits smaller packets without using RTS/CTS.

802.11 Power Save For uninterrupted data communication, you may leave this option blank to disable the power saving feature. To enable the power saving feature for your Gigaset USB Adapter 11, please check this box.

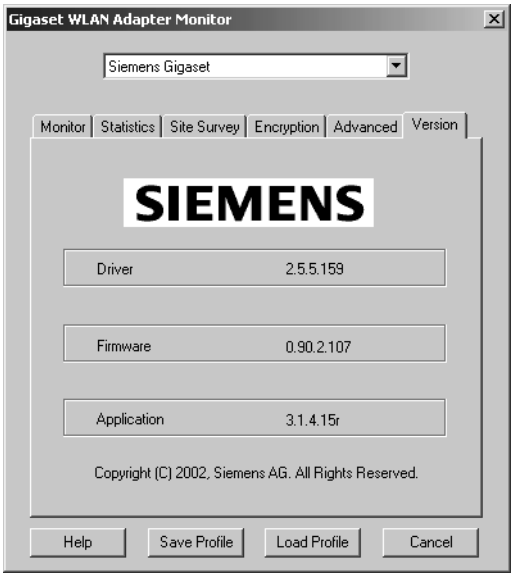
Changing the Fragmentation Threshold/RTS Threshold

By default, the Fragmentation Threshold and RTS Threshold are disabled. To change the Fragmentation Threshold/RTS Threshold parameters, move the slide bar with your mouse, or click on the slide bar and then use the right and left arrow keys of your keyboard to select an exact number.



Version

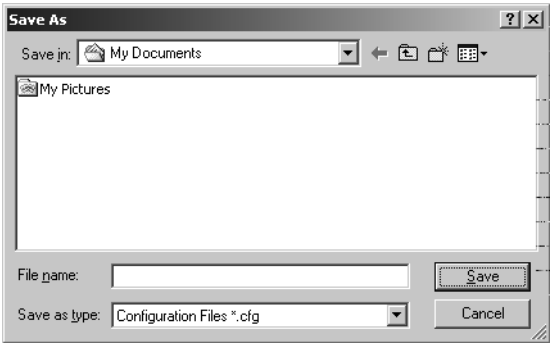
The ***Version*** tab displays the basic information about the wireless network adapter, including the Driver, Firmware and Application Version. Use the ***Hide*** button if you wish to exit the application.



Saving/Loading Profile

The ***Wireless LAN Monitor Utility*** comes with ***Save Profile***/***Load Profile*** buttons at the bottom of the panel. The profile feature allows you to save the current wireless networking settings, including the operating mode, channel, SSID, encryption and fragmentation threshold/RTS threshold, to your computer. You can save multiple profiles for different network environments and easily retrieve the required one as needed.

To save the current configuration, please click ***Save Profile***, then select a preferred location on your computer and save it with an easy-to-identify name (*.cfg).



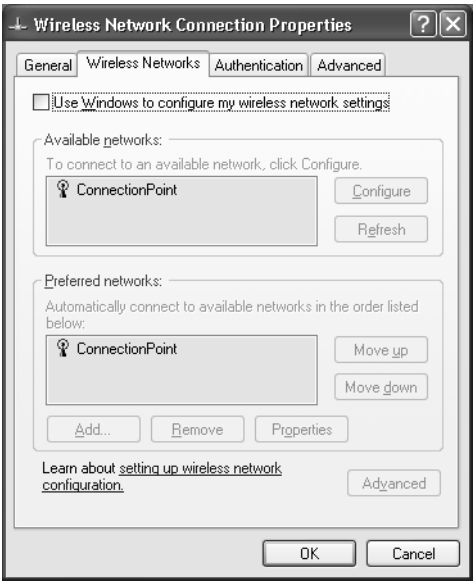
To restore the required configuration, just click ***Load Profile*** to locate the preferred profile.

Configuration Utility for Windows XP

Under Windows XP, the Gigaset USB Adapter 11 uses the Wireless Network Connection utility for both configuration and monitoring. The utility can be quickly accessed via the ***Network Connection*** icon on the system tray. If your computer is not connected to any Access Point/wireless network adapter yet, the icon should appear as below:

If you want to use the Siemens utility alternatively, proceed as follows:

1. Click ***start*** - ***Control Panel*** - ***Network and Internet Connections*** - ***Network Connections*** - ***LAN or High-Speed Internet***.
2. Press the ***Properties*** button in the ***General*** tab.
3. Uncheck ***Use Windows to configure my wireless network settings*** in the ***Wireless Networks*** tab.



4. Start the utility by selecting ***start*** - ***Programs*** - ***Wireless LAN Client Utility*** - ***Wireless LAN Monitor Utility***.

Connecting to an Access Point or Wireless Network Adapter

To connect to an existing Access Point/wireless network adapter (ad hoc mode), proceed as follows:

1. Double-click the ***Network Connection*** icon on the system tray.
2. When the ***Connect to Wireless Network*** window pops up, you will see all the Access Points or wireless network adapters (ad hoc mode) that are available. Select the wireless network you want to connect to.

Connect to Wireless Network
The following network(s) are available. To access a network, select it from the list, and then click Connect.
Available networks:
ConnectionPoint
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.
Network key:
If you are having difficulty connecting to a network, click Advanced.
Advanced...
Connect
Cancel

3. If the target Access Point/wireless network adapter (ad hoc mode) has been set with WEP key, you must enter the same WEP key in the ***Network key*** field. Otherwise leave it blank.

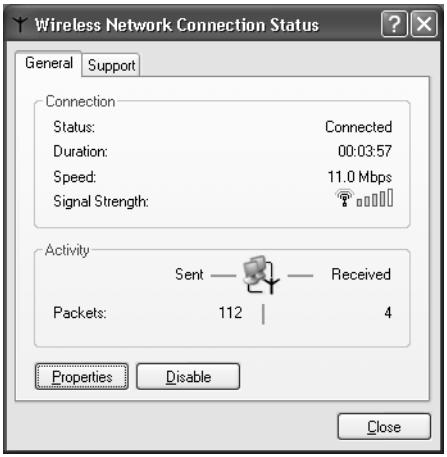
i	If you want to use encryption in infrastructure mode, please proceed as follows: ◆ Ensure that encryption is activated on the Access Point. ◆ Convert your passphrase for the Access Point to HEX format and type the key values into the appropriate field. Using the HEX format makes sure that the keys are the same, even if wireless devices use different procedures to convert passphrases.

4. Click ***Connect***, then you will join the target network and this dialog window will disappear. When your wireless connection is established, the ***Network Connection*** icon appears as below:

i	If the wireless connection can't be established, double-click the ***Network Connection*** icon and then click ***Properties***. Go to the ***Authentication*** tab first to make sure that you are using the correct authentication type for the Gigaset USB Adapter 11. For more information, refer to "Authentication" on page 33.

Viewing Wireless Connection Status

After you successfully connect to the Access Point or wireless network adapter (ad hoc mode), double-click the icon in the system tray again. This will open the ***Wireless Network Connection Status*** window where you can see the general data of the Gigaset USB Adapter 11, such as ***Status***, ***Duration***, ***Speed***, ***Signal Strength***, etc.

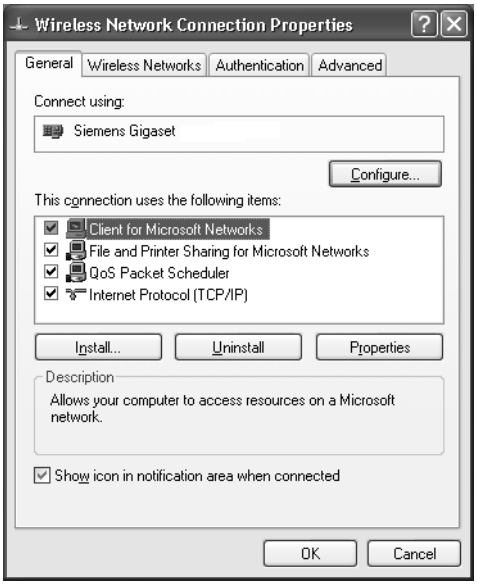


Configuring Your Wireless Properties

To configure your wireless properties, open the ***Wireless Network Connection Status*** window as described above, and then click the ***Properties*** button. This will open the ***Wireless Network Connection Properties*** window which allows you to configure more detailed items of the Gigaset USB Adapter 11. The following describes each tab of the properties window to help you make more settings for the Gigaset USB Adapter 11.

General

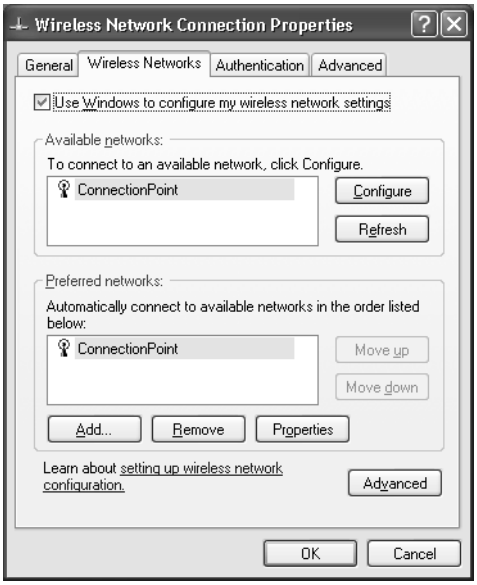
This tab allows you to specify the network methods to be used with your Gigaset USB Adapter 11. The network policy depends on your wireless network. For more information on TCP/IP setting, please refer to "Setting up TCP/IP" on page 39.



Wireless Networks

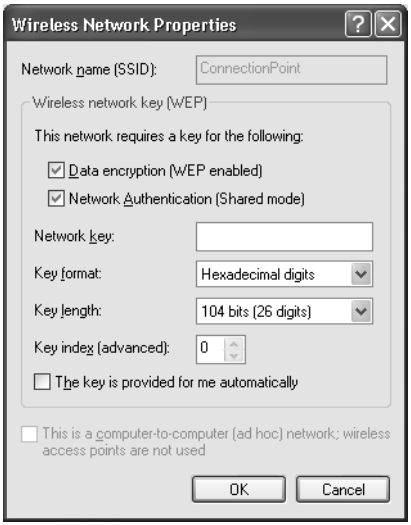
This tab contains two sections: ***Available Networks*** and ***Preferred Networks*** as described below.

Under the ***Available Networks*** section, you can also see all the Access Points and wireless network adapters (ad hoc mode) available. Clicking ***Refresh*** will update the list of Access Points and wireless network adapters (ad hoc mode).



Under the ***Preferred Networks*** section, you can add any wireless networks that you wish to connect to. Just click ***Add*** to add more Access Points or wireless network adapters (ad hoc mode) to the list.

After you click the ***Add*** button, the ***Wireless Network Properties*** window pops up. Type your network name (SSID) and, if needed, the wireless network WEP settings. Once the Access Point or Gigaset USB Adapter 11 (ad hoc mode) that you want to connect to has been set with WEP key, you must type in the same WEP key as that of the Access Point or wireless network adapter.



After adding several profiles into ***Preferred Networks***, you can change the order in which connection attempts to preferred networks are made. Just select the target wireless network and click ***Move up*** or ***Move down*** to move it to the desired position.

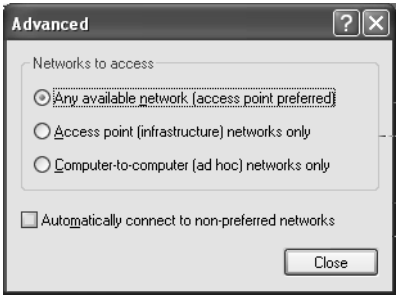
To Access Certain Wireless Networks Only

If you just want to access certain wireless network types, click the ***Advanced*** button on the ***Wireless Networks*** tab in the ***Wireless Network Connection Properties*** window on page 31 to open the ***Advanced*** window. You can choose to connect to the following networks:

- ***Any available network (access point preferred)***
- ***Access point (infrastructure) networks only***
- ***Computer-to-computer (ad hoc) networks only***

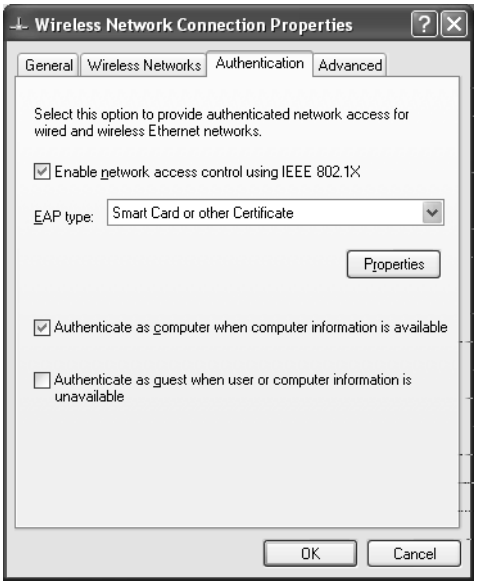
The default network type is ***Any available network (access point preferred)***. In this network type, your wireless network adapter will connect to any Access Points or wireless network adapters (ad hoc mode) available in the air but Access Point always demands a higher connection attempt priority.

Once you have finished the advanced setting, your wireless station will then connect to your desired network and the connected network will be listed under ***Available Networks***.



Authentication

This tab allows you to configure the authentication settings of your Gigaset USB Adapter 11. The most important setting for the Gigaset USB Adapter 11 is to disable ***Enable network access control using IEEE 802.1X*** to ensure successful connection between the Gigaset USB Adapter 11 and Access Points or other wireless network adapters (ad hoc mode). You must disable this function, otherwise you could encounter problems during connection. For other settings, we recommend you keep the default settings to minimize problems during connection.


Wireless Network Connection Properties
General
Wireless Networks
Authentication
Advanced
Select this option to provide authenticated network access for wired and wireless Ethernet networks.
Enable network access control using IEEE 802.1X
EAP type:
Smart Card or other Certificate
Properties
Authenticate as computer when computer information is available
Authenticate as guest when user or computer information is unavailable
OK
Cancel

Uninstalling the Gigaset USB Adapter 11

Should you need to uninstall the Gigaset USB Adapter 11 and application software for any reason, you should remove the hardware from your computer and then uninstall the associated software. Please proceed as follows.

Removing the Gigaset USB Adapter 11

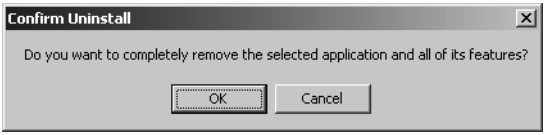
The Gigaset USB Adapter 11 complies with the USB standard that allows devices to be inserted into and removed from the computer's USB port when the computer is power on. Just remove the card from your PC's USB port.

i	To avoid any damage from occurring to your computer, under Windows 98/ME, please click on the ***Wireless LAN Monitor Utility*** icon first before removing the Gigaset USB Adapter 11. Press the right mouse button and select ***Exit***. Later the icon will disappear. Then remove the Gigaset USB Adapter 11.

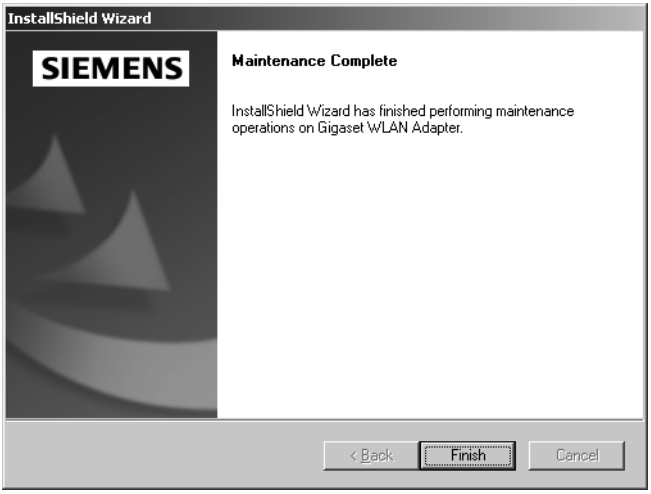
Uninstalling the Gigaset USB Adapter 11 Software

Make sure that you have removed the hardware before you proceed.

1. Close all programs that are currently running.
2. Click the Windows ***Start*** button, point to ***Programs*** - ***Wireless LAN Client*** and then click ***Uninstall Wireless LAN Monitor Utility***.
3. Click ***OK*** to proceed with the software removal procedure.



4. Click ***Finish*** to exit the wizard.



Updating the Device Driver

Periodically, you may need to upgrade the Gigaset USB Adapter 11's driver when a newer version is available. Check our website www.my-siemens.com/usbadapter11 for information about the latest driver upgrades. When you have finished the download procedure, please follow as below to update the device driver.

1. Uninstall the Gigaset USB Adapter 11 as described in "Uninstalling the Gigaset USB Adapter 11" on page 34. Follow the steps to remove the Gigaset USB Adapter 11 and then uninstall the software.
2. Install the new driver you have downloaded. Refer to "Installing the Gigaset USB Adapter 11" on page 5 for detailed instructions.

Once you have finished installing the new driver, the updating is complete.

Appendix

Troubleshooting

Symptom	Action
Radio interference	You may be able to eliminate any interference by trying the following: ◆ Reseat the Gigaset USB Adapter 11. ◆ Increase the distance between the wireless computers and the device causing the radio interference. ◆ Plug the computer equipped with the Gigaset USB Adapter 11 into an outlet on a different branch circuit from that used by the affecting device. ◆ Keep the computer with the Gigaset USB Adapter 11 away from microwave ovens, devices with cordless video/audio transmission, e.g. baby monitors, and large metal objects. ◆ Select another channel for your Wireless LAN. Consult the dealer or an experienced radio technician for help.
Card not detected	If the Gigaset USB Adapter 11 is not detected by Windows, try the following: ◆ Make sure the Gigaset USB Adapter 11 is properly inserted in the USB port. ◆ Make sure the USB port in your computer is working. ◆ Contact your dealer for additional testing if there is a hardware problem with the Gigaset USB Adapter 11.
Poor link quality	If the Link Quality display stays in the Poor range, it could be due to one of the following reasons: ◆ Radio interference. ◆ Distance between Gigaset USB Adapter 11 and Access Point is too far. Reduce the distance between the Gigaset USB Adapter 11 and Access Point (or another card).

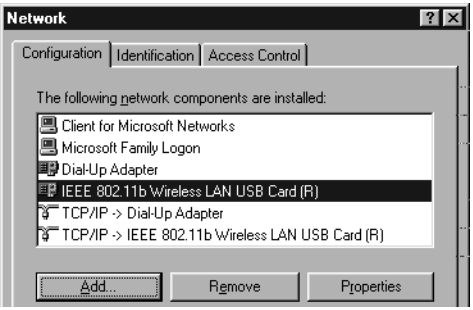
Symptom	Action
Cannot connect to another wireless network adapter	If you cannot make a connection to another wireless network adapter from your computer, it could be due to one of the following reasons: ◆ Incorrect network type, channel, SSID or transmission rate. Make sure these parameters are the same for all computers that have a wireless network adapter. ◆ Make sure that the WEP setting is the same for all computers that have a wireless network adapter. ◆ Changes are not being recognized by your computer. Restart your computer. ◆ If in ad hoc mode, make sure the ***Log on to Windows NT domain*** check box is not selected in the ***Client for Microsoft Networks Properties*** dialog box in the ***Network Configuration*** tab. ◆ Incorrect IP Address or Subnet Mask. Check these settings in the ***TCP/IP Properties*** dialog box in the ***Network Configuration*** tab.
Cannot connect to Access Point	If you cannot make a connection to the Access Point, it could be due to one of the following reasons: ◆ Make sure the Gigaset USB Adapter 11 and Access Point have no physical connection problems. ◆ Make sure the SSID for the Gigaset USB Adapter 11 is the same as that for the Access Point. ◆ Make sure the privacy type is the same as that of the Access Point. Also, make sure the Default Key is the same for both computers. ◆ Make sure that your access to the Access Point is not blocked by security mechanisms, i. e. MAC filter, IP address filter, WEP.

Setting up TCP/IP

This section contains instructions for configuring the TCP/IP protocol of the Gigaset USB Adapter 11. The IP address policy depends on your wireless network.

i	For Windows 98, 98 SE and ME you may need the CD containing your operating system. The operating system data will be required if no network functions have previously been installed on your PC.

1. On the taskbar, select ***Start*** - ***Settings*** - ***Control Panel***, double-click the ***Network*** icon.
2. Click the ***Configuration*** tab of the ***Network*** dialog box.
3. In the network components list, select the TCP/IP protocol of your Gigaset USB Adapter 11, e.g., ***Wireless LAN Card***, and then click ***Properties***.



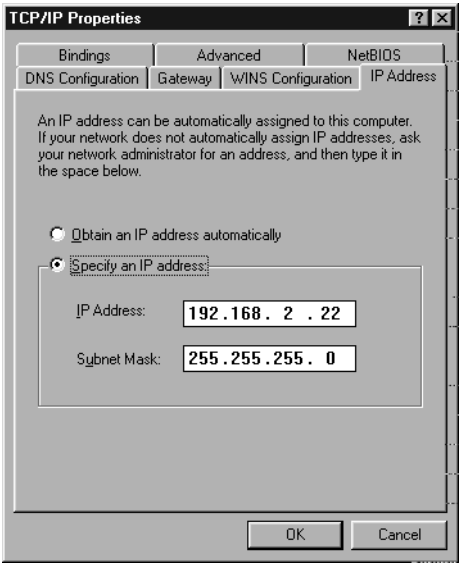
4. On the ***IP Address*** tab, choose one of the methods as required.

   Option A: Click ***Specify an IP address***.

   In the ***IP Address*** box, enter a valid four-component IP address, either a public or private one as required. If a private IP address is used, the following three blocks of IP addresses are available for private networks:

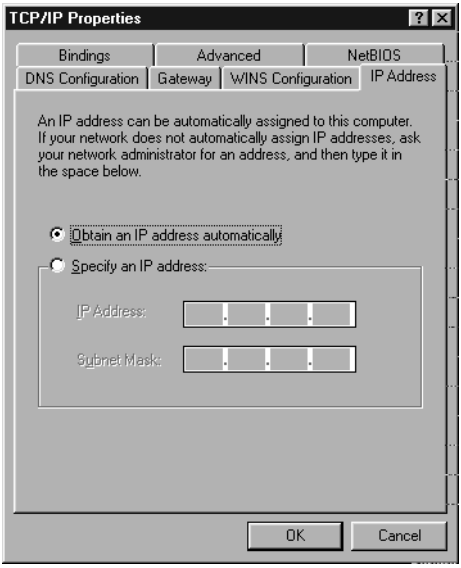
   10.0.0.0 – 10.255.255.255, 172.16.0.0 – 172.31.255.255, 192.168.0.0 – 192.168.255.255

In the ***Subnet Mask*** box, enter a valid four-component IP address.



Option B: Select ***Obtain an IP address automatically*** (only in infrastructure mode when the Access Point has the function of a DHCP server).

An IP address will be automatically assigned to your computer.


TCP/IP Properties
Bindings
Advanced
NetBIOS
DNS Configuration
Gateway
WINS Configuration
IP Address
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Obtain an IP address automatically
Specify an IP address:
IP Address:
Subnet Mask:
OK
Cancel

5. Click ***OK*** to return to the ***Network*** dialog box and click ***OK*** again to finish configuration. If your TCP/IP properties have been modified, Windows 98, 98 SE and ME will prompt you to restart your computer. Click ***Yes*** to have new settings take effect.

Specifications

Specifications are subject to change with notice.

Software

Standards Compliance	IEEE 802.11/802.11b Standard USB 1.1 Compliant (WLAN USB Card)
Operating Modes	Ad hoc mode Infrastructure mode
Security Features	Support SSID network identification for security Support 64-bit and 128-bit WEP Data Encryption and Decryption Support Authentication: Open System, Shared Key
Monitor and Configuration	Reliable and robust monitoring and configuration utilities Dynamic configuration Network traffic statistics gathering Clear LED indicators for real time monitoring of current network status
Device Driver and Configuration Utility	A USB NDIS 5.0 mini-port driver running on Windows 98/98 SE/ME/2000/XP platforms. A monitoring and configuration utility running on Windows 98/98 SE/ME/2000 platforms **Note:** Under Windows XP, use XP built-in monitoring and configuration utility.

Hardware

Interface	One 2.4 GHz RF interface for wireless LAN connection One USB connector
Radio Characteristics	
Frequency Band	2.400 to 2.4835 GHz ISM Band (subject to local regulations)
Spreading	Direct Sequence Spread Spectrum
Modulation	CCK: 11 Mbps and 5.5 Mbps DQPSK: 2 Mbps DBPSK: 1 Mbps
Number of Channels	13 Channels (Europe)
Channel Spacing	5MHz
Data Rate	11 Mbps/5.5 Mbps/2 Mbps/1 Mbps
Antenna	One external antenna
Transmit Power	17 dBm (typical)
Receiver Sensitivity	-80 dBm @ FER < 8 %

Power Requirement and Operation Environment Requirement

Temperature	Operating Temperature: 0° C to 55° C (32° F to 131° F) Storage Temperature: -10 °C to 80° C
Humidity	5 % to 80 % (non-condensing)
Power Consumption	Receive mode: 250 mA Transmit mode: 420 mA Doze mode: TBD
LED Indicators	Activity (Green) Power (Red)
USB Specification	USB 1.1 Compliant USB Slave Plug and Play Hot Swapping
Physical	Dimensions: 79.52 mm (L) x 48.00 mm (W) x 0.80 mm (H) Weight: 80 g
Safety and Regulatory Approvals	CE FCC

Your Gigaset USB Adapter 11 is intended for operation in your country, as indicated on the underside of the device. Particular conditions applying to your country have been taken into account.

The device's compliance with the essential requirements of the R&TTE directive is confirmed by the CE symbol.

Extract from the original declaration

"Hereby Siemens AG declares that the above mentioned product is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC."

The Declaration of Conformity (DoC) has been signed. If required, a copy of the original DoC can be obtained through the company hotline.

CE 0682 ⓘ

Glossary

10BaseT
An IEEE standard (802.3) for operating 10 Mbps Ethernet networks (LANs) with twisted pair cabling and a wiring hub.

Access Point
An internetworking device that seamlessly connects wired and wireless networks. Access Points combined with a distributed system support the creation of multiple radio cells that enable roaming throughout a facility.

Ad Hoc
A network composed solely of stations within mutual communication range of each other (no Access Point connected).

BSS
Basic Service Set. A set of stations controlled by a single coordination function.

Channel
A medium used to pass protocol data units that can be used simultaneously in the same volume of space by other channels of the same physical layer, with an acceptably low frame error ratio due to mutual interference.

Encapsulated
An Ethernet address mode that treats the entire Ethernet packet as a whole and places it inside an IEEE 802.11 frame along with a new header.

ESS
Extended Service Set. A set of one or more interconnected Basic Service Sets (BSSs) and integrated Local Area Networks (LANs) can be configured as an Extended Service Set.

Ethernet
The most widely used medium access method, which is defined by the IEEE 802.3 standard. Ethernet is normally a shared media LAN; i.e., all the devices on the network segment share total bandwidth. Ethernet networks operate at 10Mbps using CSMA/CD to run over 10BaseT cables.

Gateway
A network component that acts as an entrance to another network.

IEEE 802.11
The IEEE 802.xx is a set of specifications for LANs from the Institute of Electrical and Electronic Engineers (IEEE). Most wired networks conform to 802.3, the specification for CSMA/CD-based Ethernet networks or 802.5, the specification for token ring networks. 802.11 defines the standard for wireless LANs encompassing three incompatible (non-interoperable) technologies: Frequency Hopping Spread Spectrum (FHSS), Direct Sequence Spread Spectrum (DSSS), and Infrared. IEEE standards ensure interoperability between systems of the same type.

Infrastructure
A wireless network centered about an Access Point. In this environment, the Access Point not only provides communication with the wired network but also mediates wireless network traffic in the immediate neighborhood.

IP
Internet Protocol. The standard protocol within TCP/IP that defines the basic unit of information passed across an Internet connection by breaking down data messages into packets, routing and transporting the packets over network connections, then reassembling the packets at their destination. IP corresponds to the network layer in the ISO/OSI model.

IP Address
An IP address is a 32-bit number that identifies each sender or receiver of information sent across the Internet. An IP address has two parts: the identifier of a particular network on the Internet and an identifier of the particular device (which can be a server or a workstation) within that network, i. e. 193.12.7.137.

ISP
Internet Service Provider. An organization that provides access to the Internet. Small ISPs provide service via modem and ISDN while the larger ones also offer private line hookups.

LAN
Local Area Network. A communications network that serves users within a defined geographical area. The benefits include the sharing of Internet access, files, and equipment, such as printers and storage devices. Special network cabling (10BaseT) is often used to connect the PCs together.

NAT
Network Address Translation. The translation of an Internet Protocol address (IP address) used within one network to a different IP address known within another network. One network is designated the internal network and the other is the external. The internal network then appears as one entity to the outside world.

Radio Frequency
RF, Terms: GHz, MHz, Hz – The international unit for measuring frequency is Hertz (Hz), equivalent to the older unit of cycles per second. One megahertz (MHz) is one Million-Hertz. One giga hertz (GHz) is one Billion-Hertz. The standard U.S. electrical power frequency is 60 Hz, the AM broadcast radio frequency band is 0.55-1.6 MHz, the FM broadcast radio frequency band is 88-108 MHz, and wireless IEEE 802.11 LANs operate at 2.4GHz.

SSID
Service Set ID. A group name shared by every member of a wireless network. Only network adapters with the same SSID are allowed to establish a connection.

Subnet Mask
A value that defines whether your computer communicates only within your LAN or communicates outside of your LAN, where it is routed out to the rest of the Internet. A Subnet Mask that has the same first three components (for example, 255.255.255.0) is the routing pattern for a Class C address.

TCP
Transmission Control Protocol. The standard transport level protocol that provides the full duplex, stream service on which many applications' protocols depend. TCP allows a process on one machine to send a stream of data to a process on another. Software implementing TCP usually resides in the operating system and uses the IP to transmit information across the network.

WEP
Wired Equivalent Privacy. The optional cryptographic confidentiality algorithm specified by IEEE 802.11. The algorithm is being used to provide data confidentiality that is subjectively equivalent to the confidentiality of a wired LAN medium that does not employ cryptographic techniques to enhance privacy.

Service (Customer Care)

You have access to straightforward support concerning with technical aspects of your device and how to operate it through our Online Support on the internet:

www.my-siemens.com/customercare

or you can refer to the section "Troubleshooting" on page 37.

If you have any trouble with the equipment, please contact the **Siemens telephone service**:

United Kingdom	0 87 05 33 44 11
Ireland	18 50 77 72 77

The Siemens Service is only available to deal with device faults only. Your specialist dealer will be able to help you with any questions about operating your device.

Please address any questions about the DSL or cable connection to your network provider.

Guarantee certificate (United Kindom)

Without prejudice to any claim the user (customer) may have in relation to the dealer or retailer, the customer shall be granted a manufacturer's Guarantee under the conditions set out below:

- In the case of new devices and their components exhibiting defects resulting from manufacturing and/or material faults within 24 months of purchase, Siemens shall, at its own option and free of charge, either replace the device with another device reflecting the current state of the art, or repair the said device. In respect of parts subject to wear and tear (including but not limited to, batteries, keypads, casing), this warranty shall be valid for six months from the date of purchase.
- This Guarantee shall be invalid if the device defect is attributable to improper treatment and/or failure to comply with information contained in the user manuals.
- This Guarantee shall not apply to or extend to services performed by the authorised dealer or the customer themselves (e.g. installation, configuration, software downloads). User manuals and any software supplied on a separate data medium shall be excluded from the Guarantee.
- The purchase receipt, together with the date of purchase, shall be required as evidence for invoking the Guarantee. Claims under the Guarantee must be submitted within two months of the Guarantee default becoming evident.
- Ownership of devices or components replaced by and returned to Siemens shall vest in Siemens.
- This Guarantee shall apply to new devices purchased in the European Union. The Guarantee is issued by Siemens plc, Siemens House, Oldbury, Bracknell, Berkshire, RG12 8FZ.
- Any other claims resulting out of or in connection with the device shall be excluded from this Guarantee. Nothing in this Guarantee shall attempt to limit or exclude a Customers Statutory Rights, nor the manufacturer's liability for death or personal injury resulting from its negligence.

- The duration of the Guarantee shall not be extended by services rendered under the terms of the Guarantee.
- Insofar as no Guarantee default exists, Siemens reserves the right to charge the customer for replacement or repair.
- The above provisions does not imply a change in the burden of proof to the detriment of the customer.

To invoke this Guarantee, please contact the Siemens telephone service. The relevant number is to be found in the accompanying user guide.

Guarantee certificate (Ireland)

Scope

- This equipment guarantee applies to end users ("customers"). This guarantee does not in any way affect the customer's statutory rights.
- The guarantee applies to the supplied devices and all their components but not to their installation or configuration or to the services provided by the dealer. Manuals and any software supplied on a separate data medium are excluded from the guarantee. This guarantee does not apply to decorative covers or any other personalised parts or software not included in the scope of supply. The guarantee also does not apply to decorative top or bottom shells for special editions.
- The guarantee provides for devices or components that, despite proper care and use, have demonstrably developed defects due to faulty workmanship and/or faulty materials to be replaced or repaired at our discretion free of charge. The guarantee does not cover normal wear and tear. Alternatively, we reserve the right to replace the defective device with a successor model or reimburse the original purchase price on return of the defective device. Our decision is final. Any legal claims are excluded.
- Claims under the guarantee cannot be made if the defect or damage was caused by improper care or use. Improper care or use includes the following:
  - Opening the device (this is classed as third-party intervention)
  - Manipulating components on the printed circuit board
  - Manipulating the software
  - Defects or damage caused by dropping, breaking, lightning or ingress of moisture. This also applies if defects or damage were caused by mechanical, chemical, radio interference or thermal factors (e.g. microwave, sauna, etc.).
  - Repairs or other work done by persons not authorised by us.
  - Devices fitted with accessories not authorised by Siemens.
- Any further claims due to damage are excluded, such as damage arising outside the device, provided this was not due to gross negligence and/or intent on our part.
- Claims under the guarantee must be made as soon as the defect is noticed.
- A till receipt showing the date of purchase must be presented as proof. Each claim under the guarantee is accepted with the express reservation that subsequent investigations confirm the validity of the claim.
- Any devices or components that are replaced become our property.
- The costs of materials and labour will be borne by us, but not the costs of transport, postage or freight.
- We are entitled, at our discretion, to make technical changes (such as firmware updates) beyond repair or replacement in order to upgrade the device to the latest

state of the art. There is no additional charge to the customer for this work. Our decision is final. Any legal claims are excluded.

- The guarantee is valid in the country of purchase. It applies only if the device is operated in the relevant geographical area in accordance with the information on the packaging and in the operating instructions.
- Any further claims are excluded. Siemens is not liable in any circumstances for downtime, loss of profits, loss of data or loss of any other information. The customer alone is responsible for safeguarding such data and information.
- Changes to this guarantee require prior approval by Siemens in writing.

Guarantee period

- The guarantee applies in countries in the EU from 1 January 2002 for a period of 24 months.
- In all other countries the guarantee period shall be the relevant minimum statutory guarantee period, but no longer than 24 months.
- The guarantee period starts on the day of purchase by the customer.
- A successful claim under the guarantee does not extend the guarantee period.
- Work under the guarantee is handled by our Customer Care Centres.

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